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Kim, Do-Hyung
Sarbassov, Dos D.

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Arg Glu Tyr Asn Ser Lys Tyr Val Asp Leu Ile Glu Glu Gln Leu Asn
        835                 840                 845
Glu Ala Leu Thr Thr Tyr Arg Lys Pro Val Asp Gly Asp Asn Tyr Val
    850                 855                 860
Arg Arg Ser Asn Gln Arg Leu Gln Arg Pro His Val Tyr Leu Pro Ile
865                 870                 875                 880
His Leu Tyr Gly Gln Leu Val His His Lys Thr Gly Cys His Leu Leu
                885                 890                 895
Glu Val Gln Asn Ile Ile Thr Glu Leu Cys Arg Asn Val Arg Thr Pro
            900                 905                 910
Asp Leu Asp Lys Trp Glu Glu Ile Lys Lys Leu Lys Ala Ser Leu Trp
        915                 920                 925
Ala Leu Gly Asn Ile Gly Ser Ser Asn Trp Gly Leu Asn Leu Leu Gln
    930                 935                 940
Glu Glu Asn Val Ile Pro Asp Ile Leu Lys Leu Ala Lys Gln Cys Glu
945                 950                 955                 960
Val Leu Ser Ile Arg Gly Thr Cys Val Tyr Val Leu Gly Leu Ile Ala
                965                 970                 975
Lys Thr Lys Gln Gly Cys Asp Ile Leu Lys Cys His Asn Trp Asp Ala
            980                 985                 990
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Val Arg His Ser Arg Lys His Leu Trp Pro Val Val Pro Asp Asp Val
        995                 1000                1005
Glu Gln Leu Cys Asn Glu Leu Ser Ser Ile Pro Ser Thr Leu Ser Leu
    1010                1015                1020
Asn Ser Glu Ser Thr Ser Ser Arg His Asn Ser Glu Ser Glu Ser Val
1025                1030                1035                1040
Pro Ser Ser Met Phe Ile Leu Glu Asp Asp Arg Phe Gly Ser Ser Ser
                1045                1050                1055
Thr Ser Thr Phe Phe Leu Asp Ile Asn Glu Asp Thr Glu Pro Thr Phe
            1060                1065                1070
Tyr Asp Arg Ser Gly Pro Ile Lys Asp Lys Asn Ser Phe Pro Phe Phe
        1075                1080                1085
Ala Ser Ser Lys Leu Val Lys Asn Arg Ile Leu Asn Ser Leu Thr Leu
    1090                1095                1100
Pro Asn Lys Lys His Arg Ser Ser Ser Asp Pro Lys Gly Gly Lys Leu
1105                1110                1115                1120
Ser Ser Glu Ser Lys Thr Ser Asn Arg Arg Ile Arg Thr Leu Thr Glu
                1125                1130                1135
Pro Ser Val Asp Phe Asn His Ser Asp Asp Phe Thr Pro Ile Ser Thr
            1140                1145                1150
Val Gln Lys Thr Leu Gln Leu Glu Thr Ser Phe Met Gly Asn Lys His
        1155                1160                1165
Ile Glu Asp Thr Gly Ser Thr Pro Ser Ile Gly Glu Asn Asp Leu Lys
    1170                1175                1180
Phe Thr Lys Asn Phe Gly Thr Glu Asn His Arg Glu Asn Thr Ser Arg
1185                1190                1195                1200
Glu Arg Leu Val Val Glu Ser Ser Thr Ser Ser His Met Lys Ile Arg
                1205                1210                1215
Ser Gln Ser Phe Asn Thr Asp Thr Thr Thr Ser Gly Ile Ser Ser Met
            1220                1225                1230
Ser Ser Ser Pro Ser Arg Glu Thr Val Gly Val Asp Ala Thr Thr Met
        1235                1240                1245
Asp Thr Asp Cys Gly Ser Met Ser Thr Val Val Ser Thr Lys Thr Ile
    1250                1255                1260
Lys Thr Ser His Tyr Leu Thr Pro Gln Ser Asn His Leu Ser Leu Ser
1265                1270                1275                1280
Lys Ser Asn Ser Val Ser Leu Val Pro Pro Gly Ser Ser His Thr Leu
                1285                1290                1295
Pro Arg Arg Ala Gln Ser Leu Lys Ala Pro Ser Ile Ala Thr Ile Lys
            1300                1305                1310
Ser Leu Ala Asp Cys Asn Phe Ser Tyr Thr Ser Ser Arg Asp Ala Phe
        1315                1320                1325
Gly Tyr Ala Thr Leu Lys Arg Leu Gln Gln Gln Arg Met His Pro Ser
    1330                1335                1340
Leu Ser His Ser Glu Ala Leu Ala Ser Pro Ala Lys Asp Val Leu Phe
1345                1350                1355                1360
Thr Asp Thr Ile Thr Met Lys Ala Asn Ser Phe Glu Ser Arg Leu Thr
                1365                1370                1375
Pro Ser Arg Phe Met Lys Ala Leu Ser Tyr Ala Ser Leu Asp Lys Glu
            1380                1385                1390
Asp Leu Leu Ser Pro Ile Asn Gln Asn Thr Leu Gln Arg Ser Ser Ser
        1395                1400                1405
Val Arg Ser Met Val Ser Ser Ala Thr Tyr Gly Gly Ser Asp Asp Tyr
    1410                1415                1420
Ile Gly Leu Ala Leu Pro Val Asp Ile Asn Asp Ile Phe Gln Val Lys
1425                1430                1435                1440
Asp Ile Pro Tyr Phe Gln Thr Lys Asn Ile Pro Pro His Asp Asp Arg
                1445                1450                1455
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Gly Ala Arg Ala Phe Ala His Asp Ala Gly Gly Leu Pro Ser Gly Thr
            1460                1465                1470
Gly Gly Leu Val Lys Asn Ser Phe His Leu Leu Arg Gln Gln Met Ser
        1475                1480                1485
Leu Thr Glu Ile Met Asn Ser Ile His Ser Asp Ala Ser Leu Phe Leu
    1490                1495                1500
Glu Ser Thr Glu Asp Thr Gly Leu Gln Glu His Thr Asp Asp Asn Cys
1505                1510                1515                1520
Leu Tyr Cys Val Cys Ile Glu Ile Leu Gly Phe Gln Pro Ser Asn Gln
                1525                1530                1535
Leu Ser Ala Ile Cys Ser His Ser Asp Phe Gln Asp Ile Pro Tyr Ser
            1540                1545                1550
Asp Trp Cys Glu Gln Thr Ile His Asn Pro Leu Glu Val Val Pro Ser
        1555                1560                1565
Lys Phe Ser Gly Ile Ser Gly Cys Ser Asp Gly Val Ser Gln Glu Gly
    1570                1575                1580
Ser Ala Ser Ser Thr Lys Ser Thr Glu Leu Leu Leu Gly Val Lys Thr
1585                1590                1595                1600
Ile Pro Asp Asp Thr Pro Met Cys Arg Ile Leu Leu Arg Lys Glu Val
                1605                1610                1615
Leu Arg Leu Val Ile Asn Leu Ser Ser Ser Val Ser Thr Lys Cys His
            1620                1625                1630
Glu Thr Gly Leu Leu Thr Ile Lys Glu Lys Tyr Pro Gln Thr Phe Asp
        1635                1640                1645
Asp Ile Cys Leu Tyr Ser Glu Val Ser His Leu Leu Ser His Cys Thr
    1650                1655                1660
Phe Arg Leu Pro Cys Arg Arg Phe Ile Gln Glu Leu Phe Gln Asp Val
1665                1670                1675                1680
Gln Phe Leu Gln Met His Glu Glu Ala Glu Ala Val Leu Ala Thr Pro
                1685                1690                1695
Pro Lys Gln Pro Ile Val Asp Thr Ser Ala Glu Ser
            1700                1705
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<210> 4
<211> 1817
<212> DNA
<213> Homo sapiens

<400> 4

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cactgcaggc tacgaccaca ccgtgcgctt ctggcaggcc cacagcggca tctgcacccg 180
gacggtgcag caccaggact cccaggtgaa tgccttggag gtcacaccgg accgcagcat 240
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ccccatcatc agctacgacg gcgtcaacaa gaacatcgcg tctgtgggct tccacgaaga 360
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cttcctcgga caacctggcc cggctctggt gtgtggagac tggagagatc aagagagagt 1140
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atggcggcca ccagaaggct gttgtctgcc tggccttcaa tgacagtgtg ctgggctagc 1200
ctgtgacccc tcgggactgc ctggtgcagg tggtggcagc tggagggacc catgcagcac 1260
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gatgtgacag agctcgaccc aagccaggct gcacactcct ggactgggct agcctgcact 1440
gcctgggaaa gtcggccgag ggcccaaagc tgctgagggg tctgaggctg gtgcccaccc 1500
ccaagctagt gcgttctctg cccctccctg cccgcgtttc agggcctcgg tccatagaga 1560
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ggctcagtct gggaggtaat aaaagcagac cgacacgcag atgttgctcg ggaaaaaaaa 1740
aaaaaaaaaa aaaaaaacca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1800
aaaaaaaaaa aaaaaaa 1817

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<211> 981
<212> DNA
<213> Homo sapiens

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caggactccc aggtgaatgc cttggaggtc acaccggacc gcagcatgat tgctgctgca 180
ggttaccagc acatccgcat gtatgatctc aactccaata accctaaccc catcatcagc 240
tacgacggcg tcaacaagaa catcgcgtct gtgggcttcc acgaagacgg ccgctggatg 300
tacacgggcg gcgaggactg cacagccagg atctgggacc tcaggtcccg gaacctgcag 360
tgccagcgga tcttccaggt gaacgcaccc attaactgcg tgtgcctgca ccccaaccag 420
gcagagctca tcgtgggtga ccagagcggg gctatccaca tctgggactt gaaaacagac 480
cacaacgagc agctgatccc tgagcccgag gtctccatca cgtccgccca catcgatccc 540
gacgccagct acatggcagc tgtcaatagc accggaaact gctatgtctg gaatctgacg 600
gggggcattg gtgacgaggt gacccagctc atccccaaga ctaagatccc tgcccacacg 660
cgctacgccc tgcagtgtcg cttcagcccc gactccacgc tcctcgccac ctgctcggct 720
gatcagacgt gcaagatctg gaggacgtcc aacttctccc tgatgacgga gctgagcatc 780
aagagcggca accccgggga gtcctcccgc ggctggatgt ggggctgcgc cttctcgggg 840
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<210> 6
<211> 327
<212> PRT
<213> Homo sapiens

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            20   25   30
Ile Cys Thr Arg Thr Val Gln His Gln Asp Ser Gln Val Asn Ala Leu
        35   40   45
Glu Val Thr Pro Asp Arg Ser Met Ile Ala Ala Ala Gly Tyr Gln His
    50   55   60
Ile Arg Met Tyr Asp Leu Asn Ser Asn Asn Pro Asn Pro Ile Ile Ser
65   70   75   80
Tyr Asp Gly Val Asn Lys Asn Ile Ala Ser Val Gly Phe His Glu Asp
                85   90   95
Gly Arg Trp Met Tyr Thr Gly Gly Glu Asp Cys Thr Ala Arg Ile Trp
            100   105   110
Asp Leu Arg Ser Arg Asn Leu Gln Cys Gln Arg Ile Phe Gln Val Asn
        115   120   125

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Ala Pro Ile Asn Cys Val Cys Leu His Pro Asn Gln Ala Glu Leu Ile
    130                 135                 140
Val Gly Asp Gln Ser Gly Ala Ile His Ile Trp Asp Leu Lys Thr Asp
145                 150                 155                 160
His Asn Glu Gln Leu Ile Pro Glu Pro Glu Val Ser Ile Thr Ser Ala
                165                 170                 175
His Ile Asp Pro Asp Ala Ser Tyr Met Ala Ala Val Asn Ser Thr Gly
            180                 185                 190
Asn Cys Tyr Val Trp Asn Leu Thr Gly Gly Ile Gly Asp Glu Val Thr
        195                 200                 205
Gln Leu Ile Pro Lys Thr Lys Ile Pro Ala His Thr Arg Tyr Ala Leu
    210                 215                 220
Gln Cys Arg Phe Ser Pro Asp Ser Thr Leu Leu Ala Thr Cys Ser Ala
225                 230                 235                 240
Asp Gln Thr Cys Lys Ile Trp Arg Thr Ser Asn Phe Ser Leu Met Thr
                245                 250                 255
Glu Leu Ser Ile Lys Ser Gly Asn Pro Gly Glu Ser Ser Arg Gly Trp
            260                 265                 270
Met Trp Gly Cys Ala Phe Ser Gly Asp Ser Gln Tyr Ile Val Thr Gly
        275                 280                 285
Glu Pro Arg Pro Gly Leu Pro His Pro Trp Pro Pro Ala Leu Ala Ser
    290                 295                 300
Arg Ala Ser Pro Pro Arg Leu Gln Leu Pro Leu Cys Trp Gly Arg Leu
305                 310                 315                 320
Leu Gly Leu His Leu Arg Ser
                325
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<210> 7
<211> 19
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<213> Unknown

<220>
<223> SiRNA

<400> 7
acuugugaag aaucguauc 19

<210> 8
<211> 19
<212> DNA
<213> Unknown

<220>
<223> SiRNA

<400> 8
ugaacacuuc uuagcauag 19

<210> 9
<211> 19
<212> DNA
<213> Unknown

<220>
<223> SiRNA

<400> 9

uccuugucca aggaggcug 19

<210> 10
<211> 19
<212> DNA
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<220>
<223> SiRNA

<400> 10
aggaacaggu uccuccgac 19

<210> 11
<211> 59
<212> DNA
<213> Unknown

<220>
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<400> 11
ccggttcagc gtccctacct tcttctctcg agagaagaag gtagggacgc tgatttttg 59

<210> 12
<211> 59
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 12
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<210> 13
<211> 58
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 13
ccggagggcc ctgctactcg cttttctcga gaaaagcgag tagcagggcc ctttttg 58

<210> 14
<211> 58
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 14
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<210> 15
<211> 59

<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 15
ccggtacttg tgaagaatcg tatcttctcg agaagatacg attcttcaca agtttttg 59

<210> 16
<211> 59
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 16
aattcaaaaa acttgtgaag aatcgtatct tctcgagaag atacgattct tcacaagta 59

<210> 17
<211> 25
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 17
atggtgagca agggcgagga gctgt 25

<210> 18
<211> 25
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 18
ttacttgtac agctcgtcca tgccg 25

<210> 19
<211> 25
<212> DNA
<213> Unknown

<220>
<223> Oligonucleotide

<400> 19
caggagttat tttaaatgtg cttcg 25

<210> 20
<211> 25
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<220>

<223> Oligonucleotide

<400> 20
ccaaaattct ttgatcagct taaaa 25

<210> 21
<211> 25
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<220>
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<400> 21
tgtctgacaa cacccattaa catag 25

<210> 22
<211> 25
<212> DNA
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<220>
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<400> 22
gtacttgtat tccttgacca gatcc 25

<210> 23
<211> 25
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<213> Unknown

<220>
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<400> 23
gcttattcct agacagcatt atcca 25

<210> 24
<211> 25
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<220>
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<400> 24
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<210> 25
<211> 25
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<220>
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<400> 25
ccttcatagt ggagctagtt tatgc 25

<210> 26
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<220>
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<400> 26
cttagcgttg tatcatcagg tgaat 25

<210> 27
<211> 27
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<213> Unknown

<220>
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<400> 27
gaattaatac gactcactat agggaga 27

<210> 28
<211> 326
<212> PRT
<213> Homo sapiens

<400> 28

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Thr	Ala	Gly	Tyr	Asp	His	Thr	Val	Arg	Phe	Trp	Gln	Ala	His	Ser	Gly
			20					25					30		
Ile	Cys	Thr	Arg	Thr	Val	Gln	His	Gln	Asp	Ser	Gln	Val	Asn	Ala	Leu
		35					40					45			
Glu	Val	Thr	Pro	Asp	Arg	Ser	Met	Ile	Ala	Ala	Ala	Gly	Tyr	Gln	His
	50					55					60				
Ile	Arg	Met	Tyr	Asp	Leu	Asn	Ser	Asn	Asn	Pro	Asn	Pro	Ile	Ile	Ser
65					70					75					80
Tyr	Asp	Gly	Val	Asn	Lys	Asn	Ile	Ala	Ser	Val	Gly	Phe	His	Glu	Asp
				85					90					95	
Gly	Arg	Trp	Met	Tyr	Thr	Gly	Gly	Glu	Asp	Cys	Thr	Ala	Arg	Ile	Trp
			100					105					110		
Asp	Leu	Arg	Ser	Arg	Asn	Leu	Gln	Cys	Gln	Arg	Ile	Phe	Gln	Val	Asn
		115					120					125			
Ala	Pro	Ile	Asn	Cys	Val	Cys	Leu	His	Pro	Asn	Gln	Ala	Glu	Leu	Ile
	130					135					140				
Val	Gly	Asp	Gln	Ser	Gly	Ala	Ile	His	Ile	Trp	Asp	Leu	Lys	Thr	Asp
145					150					155					160
His	Asn	Glu	Gln	Leu	Ile	Pro	Glu	Pro	Glu	Val	Ser	Ile	Thr	Ser	Ala
				165					170					175	
His	Ile	Asp	Pro	Asp	Ala	Ser	Tyr	Met	Ala	Ala	Val	Asn	Ser	Thr	Gly
			180					185					190		
Asn	Cys	Tyr	Val	Trp	Asn	Leu	Thr	Gly	Gly	Ile	Gly	Asp	Glu	Val	Thr
		195					200					205			
Gln	Leu	Ile	Pro	Lys	Thr	Lys	Ile	Pro	Ala	His	Thr	Arg	Tyr	Ala	Leu
	210					215					220				
Gln	Cys	Arg	Phe	Ser	Pro	Asp	Ser	Thr	Leu	Leu	Ala	Thr	Cys	Ser	Ala
225					230					235					240

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Asp Gln Thr Cys Lys Ile Trp Arg Thr Ser Asn Phe Ser Leu Met Thr
                245                 250                 255
Glu Leu Ser Ile Lys Ser Gly Asn Pro Gly Glu Ser Ser Arg Gly Trp
            260                 265                 270
Met Trp Gly Cys Ala Phe Ser Gly Asp Ser Gln Tyr Ile Val Thr Ala
        275                 280                 285
Ser Ser Asp Asn Leu Ala Arg Leu Trp Cys Val Glu Thr Gly Glu Ile
    290                 295                 300
Lys Arg Glu Tyr Gly Gly His Gln Lys Ala Val Val Cys Leu Ala Phe
305                 310                 315                 320
Asn Asp Ser Val Leu Gly
                325
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<210> 29
<211> 30
<212> PRT
<213> Homo sapiens

<400> 29

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Cys Gln Gln Tyr Phe Leu Tyr Ile Gly Arg Met Cys Arg Thr Val Lys
 1               5                  10                  15
Gly Ile Glu Val Leu Lys Asn Thr Thr Val Phe Glu Tyr Leu
            20                  25                  30
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<210> 30
<211> 30
<212> PRT
<213> Homo sapiens

<400> 30

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Cys Gln His Tyr Phe Leu Phe Ile Gly Arg Met Cys Arg Thr Glu Gly
 1               5                  10                  15
Gly Leu Glu Ile Leu Arg Asn Thr Asp Val Phe Lys Glu Leu
            20                  25                  30
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<210> 31
<211> 30
<212> PRT
<213> Homo sapiens

<400> 31

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Ser Gln His Tyr Phe Leu Phe Ile Gly Thr Leu Ser Cys His Pro His
 1               5                  10                  15
Gly Val Lys Met Leu Glu Lys Cys Ser Val Phe Gln Cys Leu
            20                  25                  30
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<210> 32
<211> 30
<212> PRT
<213> Homo sapiens

<400> 32

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Ser Arg Glu Tyr Phe Thr Met Leu Gly Thr Leu Ser Ser Asn Leu Leu
 1               5                  10                  15
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Gly Leu Glu Ile Leu Ala Arg Asn Asn Ile Phe Asp Tyr Ile
20 25 30

<210> 33
<211> 30
<212> PRT
<213> Homo sapiens

<400> 33
Thr His Gly Tyr Phe Pro Met Leu Lys Val Leu Ser Ser Gln Lys Glu
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Gly His Ala Ile Met Glu Arg Trp Arg Ile Phe Thr Thr Leu
20 25 30

<210> 34
<211> 30
<212> PRT
<213> Homo sapiens

<400> 34
Pro Asn Val Ala Pro His Leu Tyr Gly Gln Met Ala Gln Thr Gly Gln
1 5 10 15
Gly Met Thr Ala Leu Arg Lys His Gly Asp Leu Pro Gln Leu
20 25 30

<210> 35
<211> 30
<212> PRT
<213> Homo sapiens

<400> 35
Pro Asn Leu Ala Pro His Leu Tyr Gly Gln Leu Val Gln Thr Ser Lys
1 5 10 15
Gly Phe Ser Gln Leu Leu Thr His Gly Arg Leu Leu Glu Leu
20 25 30

<210> 36
<211> 30
<212> PRT
<213> Homo sapiens

<400> 36
Val Tyr Leu Pro Ile His Leu Tyr Gly Gln Leu Val His His Lys Thr
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Gly Cys His Leu Leu Glu Val Gln Asn Ile Ile Thr Glu Leu
20 25 30

<210> 37
<211> 30
<212> PRT
<213> Homo sapiens

<400> 37

Val Tyr Leu Pro Pro His Phe Phe Gly Glu Leu Ala Lys Thr Glu Lys
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Gly Cys Gln Leu Ile Arg Lys Ser Asn Asn Tyr Gln Arg Phe
20 25 30

<210> 38
<211> 29
<212> PRT
<213> Homo sapiens

<400> 38
Ile Leu Pro Leu His Phe Tyr Gly Glu Leu Val Lys Ser Pro Gln Gly
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Cys Glu Val Leu Glu Ser Ser Gly His Phe Glu Ser Phe
20 25

<210> 39
<211> 30
<212> PRT
<213> Homo sapiens

<400> 39
Leu Lys Ala Ala Ile Trp Ala Leu Ala His Ala Ser Thr His Ser Asn
1 5 10 15
Gly Ile Glu Tyr Phe Val Glu Leu Asn Ala Arg Leu Tyr Glu
20 25 30

<210> 40
<211> 30
<212> PRT
<213> Homo sapiens

<400> 40
Leu Lys Ala Ala Leu Trp Ala Leu Met His Ala Cys Thr Ser Lys Glu
1 5 10 15
Ala Ile Glu Tyr Phe Thr Glu His Val Pro Trp Leu Leu Ala
20 25 30

<210> 41
<211> 30
<212> PRT
<213> Homo sapiens

<400> 41
Leu Lys Ala Ser Leu Trp Ala Leu Gly Asn Ile Gly Ser Ser Asn Trp
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Gly Leu Asn Leu Leu Gln Glu Glu Asn Val Ile Pro Asp Ile
20 25 30

<210> 42
<211> 30
<212> PRT
<213> Homo sapiens

<400> 42
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Gly Tyr Ser Phe Val Lys Glu Ser Asp Thr Ile Lys Leu Leu
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<210> 43
<211> 30
<212> PRT
<213> Homo sapiens

<400> 43
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Gly Ile Thr Phe Leu Ile Asn His Asp Thr Ile Pro Leu Ile
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<210> 44
<211> 30
<212> PRT
<213> Homo sapiens

<400> 44
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1 5 10 15
Gly Ala Asn Ile Leu Phe Lys Leu Asn Trp Leu Ser Val Arg
20 25 30

<210> 45
<211> 30
<212> PRT
<213> Homo sapiens

<400> 45
Arg Ala Thr Ala Leu Gly Gly Leu Cys Leu Val Ala Ser Thr Ala Gln
1 5 10 15
Gly Ala Asp Ala Leu Arg Thr Leu Gly Trp Val Ala Val Arg
20 25 30

<210> 46
<211> 30
<212> PRT
<213> Homo sapiens

<400> 46
Arg Gly Thr Cys Val Tyr Val Leu Gly Leu Ile Ala Lys Thr Lys Gln
1 5 10 15
Gly Cys Asp Ile Leu Lys Cys His Asn Trp Asp Ala Val Arg
20 25 30

<210> 47
<211> 30
<212> PRT
<213> Homo sapiens

<400> 47
Arg Ser Thr Cys Phe Tyr Ala Leu Gly Met Ile Ser Cys Ile Glu Glu
 1   5   10   15
Ala Gln Pro Ile Phe Asn Ser Phe Gly Trp Glu Ser Pro Ser
            20   25   30

<210> 48
<211> 30
<212> PRT
<213> Homo sapiens

<400> 48
Arg Gly Thr Ala Tyr Phe Val Leu Gly Leu Ile Ser Arg Thr Ser Lys
 1   5   10   15
Gly Val Glu Ile Leu Glu Ser Leu His Trp Tyr Ser Leu Met
            20   25   30

<210> 49
<211> 325
<212> PRT
<213> Homo sapiens

<400> 49
Met Asn Thr Ser Pro Gly Thr Val Gly Ser Asp Pro Val Ile Leu Ala
 1   5   10   15
Thr Ala Gly Tyr Asp His Thr Val Arg Phe Trp Gln Ala His Ser Gly
            20   25   30
Ile Cys Thr Arg Thr Val Gln His Gln Asp Ser Gln Val Asn Ala Leu
        35   40   45
Glu Val Thr Pro Asp Arg Ser Met Ile Ala Ala Ala Gly Tyr Gln His
    50   55   60
Ile Arg Met Tyr Asp Leu Asn Ser Asn Asn Pro Asn Pro Ile Ile Ser
65   70   75   80
Tyr Asp Gly Val Asn Lys Asn Ile Ala Ser Val Gly Phe His Glu Asp
                85   90   95
Gly Arg Trp Met Tyr Thr Gly Gly Glu Asp Cys Thr Ala Arg Ile Trp
            100   105   110
Asp Leu Arg Ser Arg Asn Leu Gln Cys Gln Arg Ile Phe Gln Val Asn
        115   120   125
Ala Pro Ile Asn Cys Val Cys Leu His Pro Asn Gln Ala Glu Leu Ile
    130   135   140
Val Gly Asp Gln Ser Gly Ala Ile His Ile Trp Asp Leu Lys Thr Asp
145   150   155   160
His Asn Glu Gln Leu Ile Pro Glu Pro Glu Val Ser Ile Thr Ser Ala
                165   170   175
His Ile Asp Pro Asp Ala Ser Tyr Met Ala Ala Val Asn Ser Thr Gly
            180   185   190
Asn Cys Tyr Val Trp Asn Leu Gly Gly Ile Gly Asp Glu Val Thr Gln
        195   200   205
Leu Ile Pro Lys Thr Lys Ile Pro Ala His Thr Arg Tyr Ala Leu Gln
    210   215   220
Cys Arg Phe Ser Pro Asp Ser Thr Leu Leu Ala Thr Cys Ser Ala Asp
225   230   235   240
Gln Thr Cys Lys Ile Trp Arg Thr Ser Asn Phe Ser Leu Met Thr Glu
                245   250   255
Leu Ser Ile Lys Ser Gly Asn Pro Gly Glu Ser Ser Arg Gly Trp Met
            260   265   270

```
Trp Gly Cys Ala Phe Ser Gly Asp Ser Gln Tyr Ile Val Thr Ala Ser
        275                 280                 285
Ser Asp Asn Leu Ala Arg Leu Trp Cys Val Glu Thr Gly Glu Ile Lys
    290                 295                 300
Arg Glu Tyr Gly Gly His Gln Lys Ala Val Val Cys Leu Ala Phe Asn
305                 310                 315                 320
Asp Ser Val Leu Gly
                325
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<210> 50
<211> 15
<212> PRT
<213> Homo sapiens

<400> 50

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Arg Gly Arg Ser Leu Lys Asn Leu Arg Val Arg Gly Arg Asn Asp
 1               5                  10                  15
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<210> 51
<211> 20
<212> PRT
<213> Homo sapiens

<400> 51

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Met Glu Ser Glu Met Leu Gln Ser Pro Leu Leu Gly Leu Gly Glu Glu
 1               5                  10                  15
Asp Glu Ala Asp
            20
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